

REMARKS

In the present Office Action, claims 2, 4, 6 – 11, and 35 - 37 were examined. Claims 2, 4, 6 – 11 and 35 – 37 are rejected and no claims are allowed.

By this Amendment, no claims have been amended, claims 3 and 5 have been canceled, and no new claims have been added. Accordingly, claims 2, 4, 6-11 and 35-37 are presented for further examination. No new matter has been added. By this Amendment, claims 2, 4, 6-11 and 35-37 are believed to be in condition for allowance.

The Restriction Requirement mailed January 26, 2004 has been made final by the Examiner. Accordingly, the Examiner withdrew claims 3 and 5 as being drawn to a non-elected invention. Applicants herein cancel claims 3 and 5 without prejudice and reserve the right to file divisional applications on the non-elected claims pursuant to 35 USC §121 and claiming priority to this application under 35 USC §120.

Claims 2, 4 and 6 – 10 and 40 were rejected under 35 USC §102(b) as anticipated by, or in the alternative under 35 USC §103(a) as obvious over U.S. Patent No. 5,540,860 to Hosseini et al. alone or if necessary, in further view of the specification and examples.

Applicants respectfully submit that this rejection is untenable and should be withdrawn. Hosseini et al. relates to a process for producing a gel-free dispersion or solution of copper pyrithione employing at least one surfactant. The working examples of Hosseini et al. relate to the preparation of copper pyrithione. Preparation of copper pyrithione does not disclose or suggest to one of ordinary skill in the art how to make or produce a biocidal composition comprising composite particles having a shell and a core.

Furthermore, Hosseini et al. discloses overcoming or avoiding gelation or thickening experienced in a dispersion or solution of copper pyrithione. As stated in Hosseini et al.:

the efficacy of the surfactant(s) employed in the process of the present invention, in overcoming or avoiding the above-described gelation or thickening problem, is believed by the present inventors to be attributable to the chemical affinity between the copper pyrithione (a polar molecule) and the molecules of the surfactant. It is believed that this affinity reduces or eliminates the propensity of the copper pyrithione molecules to hydrogen-bond to each other, thereby reducing or eliminating agglomeration of the copper pyrithione molecules . . . (Col. 2, lines 30-40).

Since Hosseini et al. describes reducing or eliminating the bonding of copper pyrithione molecules to one another, Applicants submit that Hosseini et al. teaches away from the present invention. Applicants submit that copper pyrithione molecules that do not bond to one another cannot properly be seen as composite particles having a shell and a core of any kind, much less ones having a copper pyrithione shell as recited in the instantly claimed invention.

Since Hosseini et al. does not teach or suggest the instantly claimed biocidal composition, but rather teach away from it. Accordingly, the outstanding claim rejection based upon this reference is untenable and should be withdrawn.

Claims 2, 4 and 6 – 11 and 40 are rejected under 35 USC 103(a) as being unpatentable over Hosseini et al. alone or view of the specification and U.S. Patent No. 5,342,437 to Gavin et al. It is pointed out in the outstanding office action that Hosseini et al. particles differ from the composition of claim 10 and claim 11 by failing to teach utilizing a “fatty acid coating.” Instead, the Office Action relies on Gavin et al. as teaching incorporating fatty acids into pyrithione compositions prior to incorporation into manufacturing articles, and that this solves the gelation problem that might otherwise exist. Nonetheless, the teaching of Gavin et al. does not suggest biocidal compositions of comprising composite particles, much less suggest the instantly claimed invention.

Hosseini et al. has been discussed above as teaching away from the present invention. Gavin et al. discloses a paint and paint base and a process and composition for providing a stable gel-free dispersion of zinc pyrithione plus cuprous oxide in paint.

The rejection based on the combination of these reference is untenable as the result sought to be achieved by the combination of the references does not disclose or suggest a biocidal composition comprising composite particles containing a shell and core, as claimed in the instant application. For example, Hosseini et al. discloses a gel-free dispersion or solution of copper pyrithione employing at least one surfactant. As discussed in more detail above, Applicants submit that Hosseini et al. actually teaches away from the instantly claimed invention by virtue of its disclosing methodology to reduce or eliminate the agglomeration of copper pyrithione. Gavin et al. discloses the incorporation of fatty acids into pyrithione compositions in order to avoid gelation. This disclosure can be viewed as another method of avoiding particle agglomeration. Accordingly, when viewed singly or in combination, neither reference suggests composite

particles of the instantly claimed invention. Accordingly, the rejection of the instant claims based upon that combination is believed to be untenable and should be withdrawn.

Claims 2, 4, 6 – 10, 35 – 37 and 40 are rejected under 35 USC §103(a) as being unpatentable over Hosseini et al. alone in view of the specification (e.g. page 7, figures and examples) and U.S. Patent No. 5,518,774 to Kappock et al. Applicants respectfully submit that this rejection is untenable and should be withdrawn.

Hosseini et al. is discussed in more detail above. The Examiner notes in the outstanding office action, Kappock et al. teach transchelation. However, contrary to the present invention, Kappock et al. teaches complete transchelation of zinc with a soluble pyrithione salt to produce an insoluble pyrithione salt. (See col. 3, lines 28-32).

As Hosseini et al. and Kappock et al. teach away from the biocidal composition of the present invention, Applicants respectfully submit that this rejection is untenable and should be withdrawn.

Claim 37 was rejected under 35 USC §112, first paragraph, as failing to comply with the written description requirement. Specifically, the Examiner states the amendment changing the 10:1 weight ratio of copper oxide to copper pyrithione from applying to the diameter of the coating material to applying to the shell constitutes new matter since. Applicants respectfully disagree with the Examiner. Support for this claim can be found at least at page 10, lines 16-24 of the present specification. Accordingly, Applicants submit this rejection has been overcome, and respectfully request it be withdrawn.


Accordingly, Applicant submits that none of the references, alone or in combination, anticipate or make obvious the invention as presently claimed and that the application is now in condition for allowance. Therefore, Applicant respectfully requests reconsideration and further examination of the application and the Examiner is respectfully requested to take such proper actions so that a patent will issue herefrom as soon as possible.

If the Examiner has any questions or believes that a discussion with Applicant's attorney would expedite prosecution, the Examiner is invited and encouraged to contact the undersigned at the telephone number below.

Please apply any credits or charge any deficiencies to our Deposit Account No. 23-1665.

Respectfully submitted,
David F. Gavin, ET AL.

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